CNN -STS 95 LAUNCH -JOHN GLENN'S RETURN TO SPACE (10-29-1998 PART 2 of 2)

https://www.youtube.com/watch?v=M3OCB6gYpeg (https://www.youtube.com/watch?v=M3OCB6gYpeg)

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From Thursday, October 29th, 1998 CNN Live coverage of the countdown and launch of STS-95 and the return of John Glenn into space. In 1962, Glenn was the first American to orbit the earth. In 1998, After a career in the United States Senate he was heading back into space.

- Launched at 2:19:34 P.M E.T
- Coverage picks up at 3:00 P.M E.T and runs until 4:58 P.M E.T

  The STS-95 Crew:
  Commander :Curtis L. Brown

  Pilot :Steven W. Lindsey

  Mission Specialist 1 :Pedro Duque, ESA

  Mission Specialist 2 :Scott E. Parazynski

  Payload Commander :Stephen K. Robinson

  Payload Specialist 1 :Chiaki Mukai, NASDA

  Payload Specialist 2 :John H. Glenn

- "The launch was rare in that the official launch weather forecast provided by the 45th Weather Squadron was 100 percent for favorable weather for launch as well as the Shuttle Landing Facility" - CBS NEWS
- This launch was also viewed in person by President Bill Clinton, being only the 2nd U.S President in history to watch a launch in person. The Other being President Nixon watching Apollo 12 takeoff in 1969.

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[Music] second [Music] you know i've i've always wanted john to be able to go back as long as i've known he wanted to but if i'd had my brothers he'd be home in ohio running for re-election right now and he said he was too old to serve another term in the senate but he wasn't too old to go in space and i think the american people should know that the decision to send him was made strictly by the book i had no role in it [Music] we have a go for engine start five four three two one booster ignition and liftoff of discovery with a crew of six astronaut heroes and one american legend he's an original american space hero john glenn made history more than 35 years ago as the first american in orbit today he's making history again at age 77 as the oldest person to travel into space talk to astronaut buzz aldrin and miles o'brien live from the kennedy space center and meet some of the people who know john glenn best get your space questions ready and stand by to talk back [Music] [Applause] hello and welcome to talkback live cnn's interactive talk show i'm roger cossack in today for bobby batista well it's been nearly an hour now since john glenn rocketed into space for the second time more than three decades since his first

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more than three decades since his first space odyssey how has the space program changed over the years is the preparation process different for astronauts now are we more interested in space let's ask cnn correspondent miles o'brien who is hosting our space coverage miles how did the liftoff go it looked perfect over here i don't think you could have scripted anything better than this one roger it was really amazing the weather was fantastic the uh there were a few problems with aircraft located in the general area of the kennedy space center but other than that uh there was one minor uh indication of a valve leak which turned out to be not much of anything that's about as close to a flawless launch of a vehicle with two million distinct parts as you could possibly imagine it's truly a spectacular sight and no matter what you may say about the validity of the space program the man space program the validity of john glenn going in space you can't help but be taken away and a bit awestruck by it all miles i will admit right now that i'm not very objective about this i am very excited and thrilled to see this happen uh tell me some of your feelings you've been there all day you've been intimately involved with all this uh how did you feel when you saw this happen uh it's it was such a thrill uh to be able to watch it and to be able to sit beside walter cronkite uh the person who i first became accustomed and got to know the space program through uh watching him in the the mid 60s for the gemini and apollo programs uh it was a thrill on many accounts uh for me and um i you know i i we as journalists tend to focus on the issue of whether it was a stunt or whether it was about science it's at these moments when i think everybody's a sort of a cheerleader for the success at least of the flight all right let's have some comments from our audience sam from uh georgia what do you have to say well one of the things that that i liked about this one was i it took me back to uh when he first went up in space and i remember the uh the race between the united states and the russians and the the national pride that we took in that and it kind of brings that back

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in that and it kind of brings that back it's not it's it's gotten ho-hum in the in the last several years because it's so routine but boy back then it was not routine miles you're way too young to remember that space race at that time but i must tell you that i i do remember it and and sam brings up a good point this does fill us with national pride and it does sort of turn our head once again to uh to the space uh to the to the space program well there's you know roger the bottom line is nasa is a victim of its own success uh they've done a very good job over the years there have been some notable exceptions of course but they've done a very good job at making space flight which is a pretty extraordinary thing look routine we don't go and cover uh airplanes taking off at the average metropolitan airport because that's routine and the same has really gone for many of the 91 space shuttle missions now 92 in orbit the fact remains that it's not a great story because nasa is so good at it it's a routine scientific mission at many times and in a way nasa would like us to pay more attention to it but they've done their best to make it not that exciting a story how do you like that nasa's a victim of their own success miles stay right there we're going to go to nasa at houston go to cnn's tony clark tony how's it going in houston at the nasa space center well you know roger i was watching the mission control i was in a berth just above mission control here at johnson space center when the launch took off and there are about seven or eight monitors in there and no one was looking at the monitors that were showing the launch itself everyone was glued to their computer screen watching the numbers come in making sure that everything was going just as expected because you know i think it's about 30 seconds after liftoff control switches from florida here to the johnson space center and they will keep control here throughout the uh the flight of discovery all right tony when you say they keep control what exactly and i suppose without being too technical what exactly do they do and how do they do it well you know miles mentioned how many parts there are to the shuttle and and there are so many functions that have to be monitored the astronauts on the shuttle simply can't keep up with everything and so what

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keep up with everything and so what mission control is able to do is monitor the activities that need to be done on the shuttle monitor the health of the shuttle and also monitor the astronauts themselves one of the interesting things is that the capcom the capsule communicator in this case susan still is a former astronaut and uh she is a an astronaut and she is the communicator between mission control and the shuttle and the shuttle and mission control and so she brings the astronauts perspective to the the operation of the the shuttle through mission control tony you've been inside that uh nasa space center and where they're controlling it describe it for us what does it look like in this look like outer space itself well no the uh the uh mission control itself is really relatively new this particular one it was only started operation three years ago and one of the things that they do in there is they they have put in kind of off the shelf computers uh before in the early days of the space mission they used a large mainframe computer and it was very difficult if one screen went down to replace it and now they use a variety of off-the-shelf types of computers that are networked throughout nasa and what you're seeing right now is the flight director she's in the light jacket that is linda ham and then the capcom right next to her they are the ones that are overseeing this flight and tony i i they are income they are in constant contact with the satellite at all times with uh with the uh astronauts there are some times that are they're described as referred to as losses losses of signal and so there are times that there is no communication uh but those times uh are very rare and they are always able to monitor the systems on the the shuttle all right joining us now a real american space hero buzz aldrin buzz what's going through those astronauts mines right now what are they doing i think they're getting ready uh to uh see their first return visit overly across the united states

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visit overly across the united states and i hope they get a very good view if you remember on john glenn's first flight he didn't have very good view outside the spacecraft he had to look through a periscope so i'm sure that that he in particular is relishing the experience of zero gravity maybe tossing a glove around and watching it float in front of him but i bet he can't wait to get to those windows to look outside our first facts from paul from ohio says in 1962 my mom and i watched as john glenn rocketed into space mom had butterflies in the pit of her stomach as the first man was launched into space today we witness history again godspeed john glenn well buzz what will they actually be able to see uh out there you said that the first time uh john glenn had to use a periscope what what kind of view will the astronauts be able to see well they'll put the spacecraft in a position where i'm sure they'll be able to look down on the earth um a little bit different from the early flights where we had tracking stations at different locations around the earth where they would have acquisition of single signal and then for a period of six or seven minutes they'd be in in contact with that ground station then they'd lose contact again so we position stations tracking stations around the earth to maximize the amount for critical time periods but now we have satellites up there that are tracking their call tracking data relay satellites and they send the information from the spacecraft back down to the mission control center in houston all right cliff you have a question for buzz aldrin go ahead yeah buzz i want to know if you'd like to go back to space i think everybody that's uh been in space at one time would like to get back there at some time i think john is a very unique case in his position because his his astronaut career was cut a little bit short because he was the first american to orbit the

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he was the first american to orbit the earth and i think he was a very valuable commodity we wanted to take very good care of that so i think the president rightly so decided not to put him at risk by having him fly again in a mercury program so he went into industry and then he got involved in a very successful political career so now he's come back again uh to to give it another try and i think he's a very well deserved uh opportunity and we've all been cheering him on but i think he's a very unique case i certainly don't expect other early pioneer astronauts to be clamoring looking for a flight miles uh now that the the the rocket has taken off uh what's going on where you are now is there sort of a letdown what's happening well i guess you can call it a letdown the uh the action really does shift very quickly over to houston and uh that's really uh the only vantage place on earth to get uh vantage point to really get a good uh look at what's going on with the orbiter the best place to be would be up there i'm sure buzz would concur with that one but uh yeah i'm sure there is a little bit of that but i'm sure there's also a great sense of gratification every time they launch one of these rockets and they launch it successfully right buzz well of course yes we have another successful launch under our belt we're beginning to build up more and more confidence in this wonderful machine that was put together by people from all over the country and it's it's really a technical marvel buzz there's been some criticism at least about john glenn going up saying that uh perhaps someone else should have gone how do you weigh in on that i can't think of a more ideal person i've known john 45 years now i was a second lieutenant and he and i uh were in combat together in korea in 1953. he shot down three migs and i shot down two of them but you know i wasn't quite as experienced as he was well you know roger i'd like to ask the audience what would the audience think if nasa had come forward and said look john glenn is a bonafide american hero he got cheated out of a second flight

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he got cheated out of a second flight let's fly him because he deserves to fly would the audience support that i wonder all right let's do this by applause how many people agree with miles that perhaps john glenn did get cheated out of a second trip and he should go up there let's hear it okay now let's hear are there those who think that perhaps john shouldn't have gone let's hear that well i think it's pretty overwhelming at least on this vote that people support the fact that john glenn should have gone up which brings me to my point roger the point is you know nasa insists on selling this as a science mission they probably didn't have to i mean i think maybe people read between the lines and see what it's really all about it's it's great public relations for nasa uh it is uh perhaps uh you know a little bit of something that is owed somebody who has done a lot for the country on many fields and so i think they have to present it as science right buzz yes i think so uh but i you know i really think there's more behind this uh because i think there's so many people out there that say gee john is physically able that's true very capable but he is 77 and if he can go up in space why can't the rest of us so it's an inspiration i think it's taking a break right now let me interrupt you too because coming up what are the medical risks of space travel and what kind of tests will be done on john glenn we'll talk with a cardiologist who has flown on the space shuttle columbia stay with [Music] us [Music] talkback live is brought to you by cancer treatment centers of america

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cancer treatment centers of america [Music] john glenn said recently that he learned president kennedy had ordered that he'd not go back into space after his first mission kennedy didn't want the risk of a national hero dying in space welcome back to talk back live but first let's go up to wall street and hear from rhonda schaffler rhonda how's the markets doing today hi there well we do have stocks taking off this afternoon it's looking to be wall street's best rally in about two weeks right now checking the dow jones industrial average it's currently up about 86 points very strong advance here we've got technology stocks showing a lot of strength banking stocks drug stocks all attracting buyers this afternoon the nasdaq composite is higher as well it is currently up about 14 points and we've got interest rates falling back a bit that's how things are looking at wall street back now to talk back live all right john glenn will be undergoing a number of tests on this space journey to measure the effects of weightlessness on the body and of course his age makes those experiments of particular interest our next guest dr drew gaffney is a cardiologist and he wrote the shuttle columbia into space welcome dr gaffney dr gaffney before i ask you any questions i want to hear about the experiment that was done on you when you were riding the columbia into space you had a needle in you didn't you well it was a plastic tube that went from the bending the elbow up to my heart so we could measure the pressure of the blood that shifts up into the chest when you're without gravity okay dr gaffney i have to ask you this question didn't that hurt uh actually it didn't and what had happened is we had a launch delay and so i actually got to keep it for five or six days uh so i was pretty used to it by the time we flew oh you mean lucky you had to have the needle in you for five or six days before you took off on the uh on the rocket is that great yeah the only disadvantage was you couldn't swim in the ocean and it sort of grossed out the pilots when they

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sort of grossed out the pilots when they saw it all right let's have some questions for dr gaffney but gina you have a question yeah i was wondering what kind of experiments is john glenn going to go through while he's in space all right dr gaffney what kind of experiments will john glenn go through well i think they're they're trying to take advantage of experiments that they've done over the years and in younger astronauts and those have to do with how the blood pressure is regulated how what happens to your heart rate and then they look at blood and urine to see what's happening to bone and muscle and how the kidney and the rest of the body regulates itself when there's no gravity dr gaffney why is it of particular importance that we do this with a man of advanced age or a man of 77 years like john glenn is as opposed to someone younger well i i actually uh share some of your commentators uh view that that that wasn't really the purpose of this and i think the that having decided they're going to do it they're taking advantage of the fact that they've not had an astronaut of of anywhere near that age and there are some specific questions that you could ask about you know how things work in a 40 year old or a 30 year old you might get some information about what happens in a much older person and that tells you more about the physiology of space buzz aldrin i suppose the argument is here that that nasa is maybe as you pointed out more in the publicity business with john glenn going than than any of the science business should nasa be in the in the pr business uh well i think it is whether it really uh wants to be or not and it should be because i think the american public would like to hear uh as completed discussion as possible and know where it is we're going i hope that nasa will realize that that part of our uh purpose is to bring the space program back to the people and one way to do that is to tell them as much as possible through public

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as much as possible through public relations and the other is through a sense of participation we invite people to come out and tour around the different nasa centers and that way they learn more about it they go through the simulators they see what the what the training is like and one of these days they're going to see what actual space flight is like all right we have a question from the audience lucretia yes i wanted to ask buzz what exactly is it like when you're leaving the earth's atmosphere and entering into outer space is it just a sudden change of gravity or what exactly happens buzzy leave it to the young people to ask the absolutely right question what is it like when you leave gravity well as the rocket leaves the ground it's consuming fuel and it gets lighter and lighter so the same thrust increases the acceleration or the g-force and then if you're getting rid of a stage you get rid of that stage and then the next stage lights up and you're back to lower g-forces but they build on up and as you get just about into orbit above the atmosphere the uh the engine is going to cut off and now all of a sudden everything is in drifting flight it's no longer being accelerated it's all in what we call an orbit and it's a most relaxing feeling there are no forces on you so you begin to drift around but as we found out there's a certain disorientation that can affect maybe 50 of the people all right miles we have angelina on the phone from connecticut and i think she has a question for you go ahead angelina hi miles hi angelina hi i wanted to uh first commend you on a great job today i was glued to the television set since seven o'clock this morning great job and i wanted to ask you since recently learning the exciting news that you're a licensed pilot would you consider going up in the shuttle and if you did would it be more exciting just being in space or just having the opportunity to report on it now miles i don't know if this is in your contract so you know you better be careful about what you say all right angelina call my agent he'll talk to you about this no uh

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talk to you about this no uh yes i'd go in a heartbeat i really would because i think uh just as a human experience i mean just look at that right there to to be uh giving that kick there that three million pound net kick into space and then go from three g's to zero g's and just to be able to see the world unfold and see the entire world pass by you in 90 minutes time that would be tremendous but on top of that to go up there and try to come up with ways to explain it to people that it hasn't been explained before uh because let's face it astronauts by and large are not chosen for their skills at uh communicating uh the subtleties of space flight to people some some are good at it like buzz uh others are not as good and i think uh to have that perspective would give take it to a different uh level for the average person all right we're gonna take a break we have to take this break but our coverage of the shuttle mission will continue have to say goodbye to former astronaut buzz aldrin thanks for joining us buzz we're going to be right back to speak to a close friend of john glenn's stay with us [Music] nobody every two years nasa takes applications for new astronauts normally 20 candidates are picked from about 4 thousand who apply any adult in excellent physical condition with a college degree can [Music] apply welcome back we're talking about john glenn's historic return to space joining us from the kennedy space center is one of john glenn's best friends henry landworth got to visit with john glenn just hours before glenn was quarantined for this launch welcome henry what did you two discuss

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henry what did you two discuss before he went off to space and or at least became quarantined well we were just wishing each other the very best john was in a great wonderful mood and he was right next to him the grandchildren were there and that his son and daughter was there and we had a wonderful other good friends and there were also other astronauts was not only john they were all of them were there with their wives and we had a beautiful view of the shuttle and it was one of one of the greatest evenings i could possibly spend in my life henry how did you and john glenn become friends i i think anybody would want to be friends with john glenn i wish i knew him how did you and how did you and john become friends we became friends in 1960 when he started the program he stayed in my hotel where i was managing and then we became family friends and we just continue being friends till this day we have a lot of business involvements together and we just uh he's my best friend and i am very honored and proud to be able to say that to you are you worried about uh your best friend john glenn's health uh from the effects of this trip and when his return into uh from space to earth no no i i tell you he is one of the greatest americans of our century and he does everything truly everything for the right reason and uh there's no question about him him knowing what is involved here he whole his life he has been actually a test pilot and he was doing a lot of other things for united states and all his life you spend really doing nothing but being a great american so uh that's just one of one of his jobs i

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uh that's just one of one of his jobs i mean that's all you know that's how he takes it and just one of his jobs you can imagine that wouldn't be just one of my jobs i'd still be shaking we have a question here from sarah sarah yes this is for dr gaffney dr gaffney we spoke to buzz aldrin about what it was like visually to go up through launch in orbit i wanted to ask you systemically what happens to your body throughout the launch and space flight well i'm terribly sorry any kind of a technical questions of this kind i would not be able to answer okay henry we're going to let dr gaffney uh and answer that question dr gaffney did you hear the question yes i did all right the launch is sometimes uh actually not uh terribly strenuous in the shuttle it's about three times gravity so if you weigh 180 pounds on the earth you weigh 540 pounds for for a brief period of time about eight minutes the the rockets make a lot of noise they shake it's not like anything else i've ever done so it's a little hard to describe and then at the end you go from being very very heavy to being weightless and it's a very strange sensation because you have been pushed in your seat for so long that when that force is gone you feel like you're gonna fly out of your seat and it's actually very uncomfortable you sort of pull forward and get some tension on your shoulder harness to reassure yourself that you're not going to come flying against the wall almost immediately in the time it takes to take your helmet off you look around and and everyone looks funny they've all gotten fat faces you get a lot of swelling in your face it puffs up and that just has to do with a change in circulation that occurs when there's no gravity to pull blood to the lower part of the body all right let's take a break everybody stay right here we're going to be back with more questions and more of your answers about the launch and the hero john glenn stay with us on talk back live

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[Music] join our talkback live discussion phone us at 800-310-4266 us at 888 310 for fax or go online at cnn.com talkback [Music] [Applause] welcome back we're talking about john glenn's historic return to space with us as our own miles o'brien dr drew gaffney and henry langworth john glenn's best friend miles first question to you this is a celebrity city down there today isn't it tell us who's there and uh tell us so what's been going on some of the people that you've seen the president what was it like i actually all i saw was walter cronkite right i was just gonna say that's right walter cronkite been sitting there all day that would have been enough for me and uh of course the president uh the president united states was here there was some concern about the president coming quite frankly with all the members of congress as well and uh for that matter 3 700 30 think of that 3 700 members of the media there for the launch you see there you see the president and the first lady watching the launch the last time a president came to a launch it was apollo 12 that was in 1969 and they launched right into a thunderstorm now a lot of people have looked back on that and said uh you know did they make a hasty decision because nixon was there watching the apollo 12 launch i was talking to alan bean about that earlier who was on that rocket as it rode in and was hit by lightning the power went out it went to backup batteries and we had to bring the batteries back up it was very unclear very dicey

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it was very unclear very dicey proposition one clear whether they would have to abort and come right back to earth i asked him if he thought that that was something that was you know driven by pr as opposed to prudence and he says no one had ever thought about lightning hitting a rocket until that point and of course a rocket would be a tremendous lightning rod and with that not only is it tall but that whole trail of gas behind it is ionized which means it's electrically charged and so lightning would go right to it so nasa learned a scientific lesson but i think they might have also learned a pr last night it was like a flying lightning rod huh miles exactly exactly it made ben franklin's kite look like nothing all right tim you have a question for miles uh mr o'brien i was just wondering what it was like to actually interview the president well he was uh it was nice it was nice it's just uh in the course of doing business you run in this business you run into people uh high and mighty and not so high and mighty and uh it was nice to have him participate in our program he seemed like he was genuinely enthused about the space program which is good to hear because it's the kind of program which oftentimes has difficult uh a difficult time selling itself when it comes time to for congress to vote budgets it's an easy thing quite frankly to cut because it's looked upon in some quarters is kind of frivolous so the fact that he came here uh i think was a good thing for the space program certainly the workers here some 14 000 of them uh were feeling uh as if they had a show of support you know miles i think that sitting next to walter cronkite was all you needed today the president that couldn't couldn't reach up to that huh well that really is that was the thrill of a career roger i can't uh really that's that's uh hard to beat to be able to sit there with walter cronkite i remember back in 1964 watching the gemini iv mission which was the first u.s spacewalk i remember it because ed white the man who did that was my favorite astronaut uh for some reason i don't remember at this time of course he subsequently died in the apollo 1 fire in 1967 nevertheless i remember so distinctly looking at you know i had a 14 inch black and white tv in our house and

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black and white tv in our house and there was tin foil on the rabbit ears and and there was walter cronkite telling me all about space and uh to be able to sit next to him and cover this launch was uh just there's no way to describe it it's a total thrill all right i have a question for dr gaffney dr gaffney you're a cardiologist and we're a cardiologist when you flew in the columbia mission why did they choose a physician to go up as opposed to a scientist or a regular scientist rather than a phys medical scientist well the the flight that i went on was specifically to study uh physiology and so there were actually three physicians on that flight all of us to varying degrees had been doing research as as i do now at vanderbilt all right miles uh i'm going to send it back to you for a conference all right wrong interruption or wrong information let's go do we have another question here i'm sorry um demira you have a question i'd like to know what kind of diet if any were the astronauts on uh while they're in space and even before they launched all right dr gaffney do you hear that question yes i did a question about diet um usually what they do if if the person as senator glenn is participating in experiments uh he'll have worked out in advance with the experimenters and with the dietitians uh compromise between what he wants to eat and what meets the needs of the experiments and then over the months of training you get to try out all the different foods and you make out a menu for the whole mission every meal every day and they keep track of that they know what's in it and they can use that as part of the experiment doc how is that food uh actually my favorite is the shrimp cocktail made in houston uh from shrimp from the bay it's spicy it's delicious let me interrupt you a second myles you understand there's a conference coming up but i'm going to throw it right over to this oh you got the food that's the shrimp right there there it is isn't that like delicious how do they

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isn't that like delicious how do they prepare that well uh gosh it takes a lot of work i'll tell you they dehydrate this stuff and the reason they dehydrate it is it makes it lighter to go into orbit now you may ask well you've got to bring the water right to rehydrate it well actually what happens is that the power generators on the shuttle are called fuel cells i don't know if you remember apollo 13 anybody remembers that story knows what a fuel cell is it takes liquid hydrogen and liquid oxygen to make electricity what's the byproduct of liquid hydrogen and liquid oxygen water so you add the water to the food which looks just delightful here and you get yourself a nice shrimp cocktail now this is by far and away the most popular meal on board the shuttle all seven crew members up there have shrimp cocktail on their menus uh all throughout the mission and um i don't know to me it looks like something the dog would leave on the carpet for now but anyway all right i don't know what this says about all the other food that's up there on that space mission if that's the most popular anyway we're going to take a break more questions about the shuttle today john glenn and all the american heroes walter cronkite stay with us [Music] about 4 000 journalists 3 000 vips and 500 000 spectators are expected to be on hand for today's launch [Music] um [Music]

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[Music] welcome back welcome back to talkback miles o'brien there's going to be a post-launch news conference shortly what do we expect pretty it should be uh these are routine news conferences nasa does this sarah every time after launch it's usually about an hour and 20 minutes or so after launch so this one was delayed slightly 2 20 p.m so 3 45 is normal generally what it is the the guys in the uh from the launch control center the guys who are responsible for actually pushing that magic button which sends them on that incredible ride come out and just uh explain what happened to the orbiter they might explain why they had the problems the so-called range safety problems there were some private aircraft that were too close to the shuttle and they had to delay uh the countdown for some time it's it's fairly a matter of fact uh nasa speak but uh on a mission like this it will be uh anticipated with baited breath i suppose you know what these guys are these guys are the definition of cool you know they just shot a guy into space and everybody's like yeah it worked and everything's fine and let me tell you how it happened uh just cool cool it's just kind of all shucks right stuff yeah all right cliff you have a question yes i'd like to ask dr gaffney as a civilian astronaut how much anxiety he had on liftoff and whether that was worse than the anxiety he had on return dr gaffney another cool guy that's a good question um i think when you wait eight years to do something you're ready to get on with it and i actually had i think in a sense made my made my deal it was going to work well i was pretty confident at least i convinced myself of that uh and my heart rate started out at 70 and it was about 95 to 100 when we got to space coming back you're wearing that big orange suit long underwear it's hot inside you're about a quart low in blood you don't feel well and my heart rate was about 160 and i was trying to stay awake so the big difference dr gaffney why why

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so the big difference dr gaffney why why was your uh why were you was your blood down i mean what causes that to happen well when you go into space all the blood that's normally in the lower part of the body because of gravity is now up in the chest the heart can pump it better and the kidney gets fooled into thinking you have too much blood and it's a bit like the athletes who do doping you have too much blood the for the in the heart so the kidney quits making the hormone that tells the body to make more blood and you quit making blood for about two weeks so all the people who come back from space are anemic all right miles you have a question for doctor yeah let me ask dr gaffi a quick question because uh the the ride into orbit is clearly the most precarious time for the entire crew but from every scientist i've talked to the return to earth will be the most critical time for john glenn in particular because of that cardiovascular stress which you're talking about and i as i understand it they will be watching him very closely all the way down with monitors and immediately after he gets off the orbiter how concerned are you about that i i actually think he'll he'll do well i think it it might even be more interesting scientifically if we could somehow have monitored very closely the first hour when the all the blood shifts up into the chest and the body really sees for the first time the the space-induced changes i think coming back it's it's really a combination of the things i mentioned you're you're hot your blood pressure tends to be very low it's not as well controlled as it was before you spent time in space and and also i think it's it's it in a sense it's more stressful because you're so close to having done it that you only need a few more minutes and i think that's the time that it's a bit like a fighter pilot on his last mission uh he really wants that to go well i think it's a combination of things dr gaffney what kind of medical supplies do

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gaffney what kind of medical supplies do they take in space uh for example what what do they have up there in case something goes wrong well they have uh a pretty standard uh medicine kit if somebody gets sick to their stomach they they have pills and they also have shots we use probably two-thirds of the astronauts as buzz mentioned get sick in space the first day or so so there's shots that you can take to to stop the nausea and the vomiting there are some sleeping pills sometimes it's very difficult to sleep in space you have sun coming up and going down every 90 minutes it's very noisy have aspirin for headaches things that are common things you might find in your own medicine chest and then they have some simple tools for dental emergencies and some other things if you were to get an infection of some type they can treat that they also have they've had in the past half dozen or so shuttle missions they've had those uh portable defibrillators that many airliners are starting to take along that was not brought along on the account of john glenn that's just part of the shuttle medical kit now all right we're going to take a break now when we come back let's talk about american heroes do we need more of them mark maguire john glenn is this the time we need more american heroes stay with us [Music] he's worked on the post launch news conference is about to begin at the kennedy space center let's go join it now and we'll begin with opening statements from mr mukwonago okay thank you uh let me say we're very happy to have another mission in space uh this has been a very busy week as you know preparing for the launch of sts-95 we have a very complex mission that's about to execute a lot of very important science for nasa and hopefully

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important science for nasa and hopefully provide that science for the american people and for the world and a better understanding this is a complex mission that has multiple tasks assigned to it that includes a lot of things that exercise the capability of the space shuttle and this is a showcase demonstration of of the space shuttle's capability and the unique capability that we have in it we also say we're happy to fly what everyone perceives as a national if not a world hero and we're happy to have put him back into space again we had great weather today the once again the weather forecasters put the pressure on the hardware because they forecasted a perfect weather and the weather prediction degraded from yesterday to the day it went from perfect to perfect so we had the ideal weather to launch a spacecraft uh let me just cover one issue the we had a few minor issues that led up to launch and uh and ralph's team worked those beautifully we also had uh one issue that i'm sure you're interested in in looking at a preliminary look of our video post launch we have seen that what appears to be a panel came off of the vehicle as then this happened just after main engine start approximately two seconds after main engine start the panel appears to have impacted the right side of the center or number one engine nozzle the panel appears to have come from the drag chute door area although we can't confirm that it is the door as of yet but that door is approximately 18 inches by 22 inches in size and the video analysis of that panel continues we do know that if that panel did come off our preliminary looks show that it is no hazard to the operation of the vehicle on orbit and that we should have a successful mission come out of this based on what we know today there's a

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based on what we know today there's a lot more activity that needs to take place to analyze exactly to confirm this door is what we think it may be and the to analyze what its trajectory was and understand more about the impacts but our preliminary analysis is we're okay with with what we've seen so far several people are off looking at this videotape to analyze its impact on the vehicle impact on the main engines if any and a team will be convened tomorrow morning at nine o'clock eastern standard time to continue the investigation and compile the information we know and we should have more information for you after that team meeting and with that that's all i have thank you ralph first of all i'd like to say that the ksc launch team is glad to be back in the business of launching shuttles after a summer no launch activity i thought the launch team performed outstanding we got exercised at the end by a couple of uh nuisance problems really where we uh first of all the leak check that we do on the cabin uh causes some caution and warning alarms as we pressurize and vent the cabin there was one extra caution and warning alarm that it took the team a few minutes to make sure they understood and then we picked up the count again and then as we got close we got excited a little more when the rain safety gave us a no-go and from uh talking with them after the the account was over they had worked a number of issues really it appears that the private pilots out there kind of jockey for position as we get ready for launch outside of our clear area and one cessna 182 was in between us and the indian river and they had to send search one out to escort it out of the area and as they were doing that uh closer to uh 31 seconds

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uh closer to uh 31 seconds we also had an aircraft that was unidentified as of yet come in in the play linda area and on route to to that area it cleared the area and they subsequently gave us a go so they uh they had a little exercise for us there at the end and made us a little tense and made the rookie launch director sweat a little bit but we got off successfully i might also add that uh i might add that ralph doesn't normally wear his tie that way it's tradition for the first opportunity of a launch director to uh to have him appropriately recorded on his tie so congratulations to ralph thank you okay let's take questions uh name and affiliation please um let's start over here stephen stephen young with um writers if if that was indeed the door that was ripped off the the drag chute what would be your primary concerns if any would it be the thermal effects on the parachute during the mission and and you just simply decide not to use it during landing if you had any concerns and and that's something you've done in the past so it's not a big deal well if if this were the drag chute door um the purpose of the drag shoot is to assist us in slowing the vehicle and in crosswind landing capability we flew the first 50 missions of the space shuttle program or i should say the first mission where we flew the drag shoot was sts-50 and we obviously can successfully land the space shuttle without the drag chute so its impact to its intended operational purpose is uh minimal and furthermore the drag chute is held in place by pyrotechnic devices and we have no indication from the video and the preliminary looks that any of those are fired the drag chute is intact in the well where it belongs so that's our assessment at this point more to come okay terry let's go behind you get bill harwood uh bill hart with cbs news just

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harwood uh bill hart with cbs news just to follow up on that just to make sure there's no way that the shoot if the door is in fact gone what you're saying i'm interpreting is there's no way the chute itself could possibly partially deploy or come out during entry or any time on orbit to have something strange happen during entry is that what you're saying the way the shoot mechanism works is the door itself is forced off by the deployment of the chute there's a mortar that fires and impacts the door and pushes the door through some sheer pins to bring the door off so that at this point we have no indications either through telemetry or any video that that the drag chute is activated in any way and it's where it belongs and i guess in the absence of being able to actually go look at that this is not something that would make you guys consider any kind of shortened mission or anything like that if if that was the case you'd fly your mission and come on at this point we know of no impact to the mission okay second row martin berkey with the huntsville times is it something that would make you want to land at edwards instead of kennedy possibly just as a precaution uh that could be considered but we have landed at edwards and at kennedy many times without drag shoots successfully and the impact of the loss of the shoot would be minimal it may be a subtle point in selecting a runway should we have high cross winds but at this point there's probably no impact okay um seth right here seth bornstein knight raider one more shoot question here is i just wanna make sure i understand this if the shoot won't come out in orbit is the issue that the shoot itself during orbit and during launch would have been damn it could have been damaged without that protective door at this point seth we really don't know so i can't answer your question we know it's no impact to our operation at this point and more to come on whether or not we think it's appropriate to try to use it if if indeed it is the dragster door we have more infor information we need to glean from the videotapes and from our telemetry and you're getting first first-hand information we've only had a preliminary meeting on this issue okay stephanie popular mechanics is

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okay stephanie popular mechanics is there any chance that the heat of re-entry might trigger the pyrotechnics uh to deploy the parachute in the background no we have no reason to believe that that would happen okay uh the questions okay phil jonathan let's get off the shoot and get onto the airplanes was there any indication as far as the second plane identity or anything that uh it was just another wayward pilot or that conceivably could have been a threat of some kind or anything like that no my indications from the range were they they thought it worked they were private pilots that were trying to jockey for position and no more information than that at this time okay let's go right here mike cheetah orlando television i was wondering if you could tell me the impact of having the president the first lady here for this launch and did it change anything as far as the itinerary the impact of having the president the first lady here was obviously a lot of publicity for nasa and for this launch but in terms of its impact on the mission management team or the control team a wonderful job was done to isolate the operation from the publicity that surrounded this launch and i could you could ask ralph the same question but i feel very good about the way the team executed and did not feel any undue pressure is associated with any of the public activities yeah i also want to add i i want to commend our pao office and our center management of doing an outstanding job of isolating the launch team from a lot of the extracurricular activity that was going on and i felt in no way did it impact the performance of our launch team okay thank you let's go back and get todd right there uh todd halberson florida today for uh mr mcmonagle um could you clear up a couple of things for me on th this shoot one is is there any chance that the shoot itself the material that makes up the chute could could burn during reentry now that it i suppose is

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during reentry now that it i suppose is exposed with the door being gone and two is there a thermal barrier in between where that door was and the the bulkhead or whatever toward the back could there be a breach in the shuttle's thermal protection system without that door there well it would be premature for me to answer that question todd there's a lot of engineering homework that needs to go on i do know that the door is in the wake of the vehicle and the shoots in the wake of the vehicle but we need to go analyze that you need to give us time to to assess that i don't believe that's the case but we need to go look at it and verify it okay mark uh mark caro from the houston chronicle could you pinpoint the location of the door as best you can and also could you describe what it's made of if it's carbon phenolic or aluminum or whatever well the door is located right above the center engine and right at the base of the rudder speed brake of the vehicle the door is approximately 18 inches by 22 inches by 1.75 inches thick it's made of waffle shaped aluminum and it has an insulative cover on the outside okay thank you right there there you go dave laura columbus dispatch could you clarify two things um first of all uh is this chute only used when there are strong cross winds or is it used all the time and second of all did it do we know it struck an engine or what at this point we can't confirm that it struck an engine you've seen the video it appears that it may have struck uh the center engine we have to go back and verify that through analysis the drag chute is used on most of our landings the only limitation on use of the drag chute is when we have excessively high cross winds because of the potential for the drag chute to cause us to

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cause us to directionally steer into the wind but uh the drag shoot is normally used okay other questions okay let's move the mic over here it's coming to you from the center gary nurenberg from tribune broadcasting you've been very careful to say if it's a drag chute door what else could it be and if it is how much does that does that door weigh uh i honestly don't know the weight of the door we'll have to get you that but the uh i say if it's the drag shoot door there's insulation on the outside of the door it could have been that we need to look carefully at at the location from whence it came it looks from the video like it's the door but we need to verify that and it may not be the door there are several sections the door has a frame around it it has insulation on the outside of it we need to find out if it's a piece of that of that uh of that assembly or whether it's the entire assembly or what so i can't answer your question if it was the door if it wasn't or how far would it have fallen if it hit the engine uh i can't answer that either i i know the uh i don't know the exact dimension we'd have to get that off of the video it's a matter of feet that it would fall okay other questions all right we got one in the back sipping there you go eh almond machuca from reddy marti and caracol international the cooperation between the nasa and the space european agencies and other agencies are we going to continue and it i understand there's a little tense between nasa and russia at the moment that's correct uh the international cooperation has never been better this crew represents um that kind of cooperation with the international character of the crew the complexity of the mission and the participation of all of our international participants in that complexity represents a wave of the future for

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represents a wave of the future for operating on space station where we will perpetually have an international crew on orbit and i i believe this this cooperation between countries is appropriate it's beneficial to us all and it should very much continue okay thank you we do have some questions from the other centers so let's go to questions from the johnson space center first hi aj haas stuttler from the richmond times dispatch one of the things that senator glenn and commander brown talked about was the chance for the two of them to see earth through the spacecraft windows what's the earliest point that that could happen in today's flight i'm sorry i don't believe i caught that can you answer that there is a point that they can look out the windows oh that they can look out the window i think that happened at t-0 but for for senator glenn on the mid deck his opportunity to look out the window probably depends on how far he can crane his neck to the left um to look out of a hatch window and i'm not even sure that's open for launch so by the time they reconfigure the vehicle on orbit and people can get out of their seats which is typically uh after the ohms ii burn which happens typically about 42 minutes into the mission is when people get out of their seats and you begin to migrate up and down between the flight deck and the mid deck so i'd say around the 45 minute time frame is when senator glenn would be on the flight deck getting a full view of what he's once seen before and no doubt he was the first one to the window there in the space shuttle this afternoon we've been listening to the first news conference from kennedy space center since the launch of john glenn and company this afternoon hello i'm natalie allen and i'm lou waters space on our mind today a special report now on john glenn's return to space we heard before the launch uh shortly after 2 p.m eastern time today what a near perfect uh launch it was this except for a couple of hold patterns and we'll explain that in a little while but apparently there was what the space people call an anomaly

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what the space people call an anomaly upon liftoff the vibrations apparently knocked a door uh loose on the space shuttle a drag chute door at least they think that's what it is it may have struck an engine it may have had some impact on the drag chute which is used as you know during the landing of the space shuttle uh craft cnn's john zarrella is among those at the kennedy space center for the launch today he's been listening to this news conference just what is it uh john that apparently has gone wrong on launch well it was uh certainly an an incident that you don't hear of often at all a drag chute door apparently that's what they think they haven't completely confirmed it but the drag chute door and i'll give you an idea where that is located underneath the tail here of the space shuttle back under here just above the engines is where the drag chute door is located and when they are landing in a crosswind any kind of difficult weather conditions here at the kennedy space center they would deploy that drag chute and it helps them to bring the vehicle in more quickly more rapidly to a better more controlled stop now they didn't use it for the first 50 flights of space shuttle vehicles so it's not something they have to have the issue that they would be concerned about would be what if at any time if there was some damage to the engine if possibly that drag shoot door might have bumped the engine or if the drag chute could deploy itself at some point during some part of the flight or on re-entry nasa officials are saying they do not believe that would happen they don't believe it can happen the door if indeed it is what fell off is about 18 inches by 22 inches waffle coated aluminum that is uh what we are looking at now so now of course an anomaly in space again underneath here is where that drag chute is but again they're not saying specifically that's exactly what the situation was now with the shuttle up in orbit uh john

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now with the shuttle up in orbit uh john glenn is in orbit that is where we we stand right now everything else apparently very going very very smoothly with the vehicle and uh it has been one heck of a day for all of us here and certainly for the crew and john glenn on glenn's first flight back in 1962 he had 10 launch attempts before actually launching on the 11th try on february the 20th in 1962. work with each of the crew members to accelerate the timeline and ensure we stay ready for launch at two o'clock today [Applause] yeah um it's a it's a very planned choreographed event and uh there are many many people you know involved that that you don't see on camera right now working uh behind you can see some of the zootecs there's gene alexander she's a veteran uh suit tech lady she actually was on the crew that strapped uh senator jay garner she's going to be on her number two senator now strapping uh senator john glenn in and uh the uh orbiter hatch right in the background and that small uh kind of like uh metal slide is actually how they get in they they can't walk in because there's not enough clearance so they'll actually get down their hands and knees and you have to crawl in and then stand up or move yourself around uh feet first or head first to get where you need to go if that's the flight deck or mid deck so you have to

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flight deck or mid deck so you have to learn how to crawl in in what handholds you can use and where you can put your knees and feet and hands so you're not touching switches or important things like that but yet also be able to move around and position yourself to get up in the seat okay and uh senator john glenn is entering uh sp space show the orbiter right now climbing up into his middle seat in the mid deck hello tv ps2 come check over mps2 this entity i've got you loud and clear welcome aboard john glenn roger thank you much are you loud and clear also which will give the crew more room to perform their duties during uh you know the time that they're up in space uh usually one one or two seats remain up on the deck tucked over in the corners or one can come to that iso switch open until you get a vent iso talk back open and then talk back closed all systems are go all systems have been reported go for launch of discovery less than one minute away now from the historic return of john glenn to space stations t-minus 10 nine eight we have a go for engine start five four three two one booster ignition and liftoff of discovery with a crew of six astronaut heroes and one american legend discovery roll program roger roll discovery

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one minute and 50 seconds into the flight discovery now at an altitude of 25 miles traveling at a speed of 2 900 miles an hour the next event will be burnout and separation of discovery's twin solid rocket boosters once the vehicle left the launch pad and we heard roll program it was turned over to mission control in houston that's where our cnn tony clark is standing by and uh tony i would assume that by now the astronauts have probably been informed by mission control that there might be a problem with that shoot door uh that would be standard procedure wouldn't it indeed the mission control in fact the the capcom in this case uh susan still is the person who communicates with the the astronauts and keeps them up to date on any possible changes but as we heard in the news conference the the nasa does not know what effect that would have mission control the flight controller there linda ham and the light-colored jacket she has the overall responsibility for this shuttle mission there are some 35 to 40 other people in mission control who watch a series of monitors to gauge all areas of the spacecraft's health and also the astronauts health also to keep the astronauts on their timeline throughout this nine-day mission three two one girl the flight of gemini 4 in june 1965 marked not only america's first spacewalk but also the first time manned space flight was controlled not from cape canaveral but from houston houston was picked over 18 other cities to be the home for mission control

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to be the home for mission control whether it was a trip to the moon or earth orbit in the shuttle okay stand by the fact that it's here is sort of irrelevant once like you say once the vehicle launches it could be anywhere on the face of the earth and liftoff of space shuttle columbia while florida maintains control over the launches once the spacecraft lifts off the pad houston takes over discovery houston for ev8 go ahead houston working in shifts around the clock flight controllers monitor and analyze every aspect of the shuttle's performance and the crew's health we control the mission collectively both in terms of helping the crew manage the system maintaining the timeline and doing the replanting and doing the bulk of the decision making here on the ground this newest version of mission control began operation just three years ago it cost 250 million dollars and uses standard workstations and local area networks rather than the big mainframe based system of the old mission control there are some replanting summary sheets included in your execute package astronauts fill the role of spacecraft communicators capcom they're the voice of mission control to the shuttle and also to represent the crew back to the flight control team and to sort of watch out for the crew's interests help us keep an awareness of what the crew might be thinking in the cockpit or how the crew workload is being distributed among the crew members houston is not only the place where the mission is controlled this is also the place where the astronauts do a large percentage of their training in fact behind me you can see one of the shuttle trainers it is a full-size trainer that the astronauts use to to work out throughout the mission to try to figure out the different roles that they will be performing throughout this mission this is where they learn to do what they do in flight this has been a so far successful mission from nasa's standpoint in the public interest area in trying to to generate

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interest area in trying to to generate public interest not only in people my age who remember john glenn when it he flew the first time but also an effort to get young people interested over at the teague auditorium today elementary school students came they have adopted this mission sort of as their own and they sat in the auditorium today watching and hearing the the launch for themselves in fact the speakers inside there gave them the whole feel of the the shuttle as it took off today and that's one of nasa's really key efforts now is not only to to keep people who have followed the space program on board but also to generate new interest in the space and shuttle programs john tony you're certainly right nasa got a big booster shot of adrenaline and enthusiasm so to speak from this launch the key is i guess whether it will carry on long after the nine days and you've got a certainly exciting nine days ahead of you there at houston at the johnson space center again to reiterate the the one problem uh a potential problem a drag chute door may have come off uh during liftoff uh the extreme vibration of liftoff that's a new one that's never happened before that i can recall not at this point considered to be a serious serious problem but they're still working it no talk at this point of any impact to the length of the mission but it's an issue that we are certainly going to have to keep following here as the nasa engineers delve into exactly what happened on liftoff and if indeed it is a drag chute problem the astronauts in orbit going about their business now john glenn going around the world this john zarrella reporting live from the kennedy space center back to you lou natalie john about the problem with the hatch uh i know it wasn't part of the mission but are all shuttle flights you may not know the answer to this prepared for a spacewalk if need be there's emergency contingencies that someone has always done a spacewalk if absolutely necessary they can usually do it i don't know that

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they can usually do it i don't know that on this mission they're equipped with the suits because they have to carry the special pressurized suits to go outside to actually do the evaluation of what might happen but i believe that in all cases there are at least a couple of astronauts checked out who can do an eva if an emergency situation were to occur that would be uh and on most shuttle flights i assume this would be the same all right john zarrella down to kennedy space center keeping watch natalie huge crowds gathered along roadsides beaches and all sorts of other places near kennedy space center to watch the shuttle launch cnn's mark potter was right there with them shortly after the left off the crowds began to dissipate the crowds that had been here for eight hours waiting for this launch said that they were surely not disappointed this was a very exciting day for them we had 300 000 people according to tourism officials here in the brevard county area watching this launch they crowded the roads uh they crowded the beaches the uh the docks any place that they could find a place to stop they did and they watched this launch the sheriff's department says that there were really no major problems despite this huge crowd everyone seemed to get along just fine there were no major injuries anything like that some major traffic tie-ups and those are still expected to continue as people leave this area but it was all in all a really a spectacular day for people our coverage has been provided by the goodyear blimp stars and stripes which has been helping us with our special coverage and uh the final point that i would like to make is that the people here said that they had to put up with the sun they had to put up with crowds but in the end after seeing the liftoff they knew that this was a very special day and they're glad they came here we heard the words spectacular extravagant anything that they could say that described their emotion all of which were very high people were waving flags cheering some people weeping because

01:10:00 (https://www.youtube.com/watch?v=M3OCB6gYpeg&t=4200s)

cheering some people weeping because this was such an emotional moment a big day and certainly had met and exceeded their expectations this is mark potler cnn in titusville and we're getting our first live pictures from the shuttle right now up in space what we're looking at and it's a little difficult to determine what it is exactly but we understand the cargo bay doors are open once the shuttle gets up there they want to cool things down and that's what they've done they've opened the cargo bay doors back there where the space lab is where john glenn will be working his science project on this mission these are live pictures from discovery we were talking earlier about the live pictures of of the astronaut the camera pointed at the astronauts during liftoff i don't know if that was a tape on a previous mission or if we have yet to see those pictures or if they didn't do it this time uh but uh uh we are continuing to follow this uh very special day of john glenn's return to space and our special coverage will continue here in just a moment and apparently we're waiting for that tape blue of that cockpit shot as the shuttle blasts off so as soon as we get it we'll bring that to you this uh this mission is is more than nostalgia there's science involved and we intend to get into more of that ahead as we continue our specially there appears to be absolutely no hazard to the vehicle [Music] during the discovery mission john glenn will be participating in 10 experiments

01:12:00 (https://www.youtube.com/watch?v=M3OCB6gYpeg&t=4320s)

will be participating in 10 experiments on the effects of weightlessness on the human body and our dr steve salvatore looks now at what the space experiments could mean for those of us with our feet firmly on the ground when john glenn took his first space flight 36 years ago doctors were only guessing what would happen to human beings in space in 1962 some people thought that when he went into outer space there would be an elongation of the eyeball that there would be changes in the fluid dynamics in the inner ear but a lot has changed since then years of medical experiments aboard rocket ships and space shuttles have given doctors a better understanding about how weightlessness affects the human body and they found an interesting correlation some of the issues problems biological phenomena which are common with aging have similarities or parallels in changes which occur in space and flight to further test those similarities glenn will be the subject of a variety of medical experiments to test balance dizziness and inner ear changes the ultimate application of this information would be to design interventions countermeasures or preventions to prevent the loss of muscle mass the loss of strength preserve function in older people as they age on earth as well as for those who will fly under conditions of weightlessness but critics say this medical research isn't research at all this scientific experiment isn't going to tell you about the relationship between aging and the deterioration of the body from weightlessness it's going to tell you about the comparison of the deterioration of body and weightlessness and john glenn but nasa and the national institute on aging disagree and say while they don't expect to draw major conclusions from the mission they do hope to find some clues the mission will have at least one conclusive finding that people in their later years can still demonstrate strength capability and valor and while we lose some things as we get older we never lose the right stuff dr steve salvatore cnn new york this was in in one aspect

[01:14:00 (https://www.youtube.com/watch?v=M3OCB6gYpeg&t=4440s)](https://www.youtube.com/watch?v=M3OCB6gYpeg&t=4440s)

cnn new york this was in in one aspect truly a nostalgic uh mission today we had something for everybody though some of us of a certain age uh were witnessing uh john glenn uh god and wishing him godspeed for the second time right and some folks were just seeing him racing to space for the first time today including some houston grade schoolers and here they are we'll have more after this bill when you're in the vehicle during the asset will tend to push you back roll and then we uh later in the flight we use the telling the crew exactly what it is they have to do news [Music] cnn is absorbed in space today we're continuing with our special report john glenn returns to space at cancels out burden of proof which will be seen again tomorrow the shuttle finally lifted off at 2 20 p.m eastern this afternoon everything going well except that it seems that a drag chute door didn't make it into space and john zarrell has been checking that out at kennedy space center john natalie has certainly had an almost picture-perfect day a couple of minor problems some aircraft airplanes that were in the actual area they had to clear them out before they could lift off a minor technical glitch but nothing that was a show stopper and though now following a briefing this afternoon post-launch briefing we find out that indeed there may be an issue that they are working what the problem is is with a drag chute door the vibration on liftoff apparently jarred loose may have not completely confirmed but may have jarred loose a a door drag chute door now the drag chute door is located underneath the tail section of the plane up under here the space plane now at some point they believe it could

[01:16:01 (https://www.youtube.com/watch?v=M3OCB6gYpeg&t=4561s)](https://www.youtube.com/watch?v=M3OCB6gYpeg&t=4561s)

now at some point they believe it could have possibly hit one of the engines as it flew off there's no indication right now that of any severe damage to the vehicle no indication that this means that they are going to have to shorten this mission nothing like that engineers are working the problem they have used the drag chute on landings in crosswinds and severe weather conditions but they have only used it in the last 40 odd missions the first 50 shuttle flights they never used it at all so it's they can do without it and they do not believe that it is an issue where it might deploy in space or it might deploy on landing so they're not overly concerned with that at this particular point in time of course again it was a wonderful day here let's take a listen and a look at those last two historic moments of the countdown five four three two one booster ignition and liftoff of discovery with a crew of six astronaut heroes and one american legend discovery discover houston go throttle roger go up [Music]

[01:18:24 (https://www.youtube.com/watch?v=M3OCB6gYpeg&t=4704s)](https://www.youtube.com/watch?v=M3OCB6gYpeg&t=4704s)

so of course as we all know the first two minutes of powered flight while those solid rocket boosters are burning is the most critical phase at about two minutes and five seconds in those boosters burn out and fall away from the vehicle and then the shuttle's three main engines take over and power it for another five or six minutes into the flight five miles traveling at a speed of 2 900 miles an hour any second now and separation of discovery's twin solid rocket boosters and there go the solid rocket boosters falling away a fabulous shot the shuttle's three main engines now taking over for the next five to six minutes the next thing you would hear here would be pressed banjo would have meant if they had to go to the abort landing site of course they didn't they went on to orbit the next big event would be prestamiko that would be main engine cutoff which would come about eight minutes into the flight at which point it would put discovery on its way about 70 miles up and on its way into orbit around the earth right now cargo bay doors have been open the shuttle is actually flying now wouldn't have the the solid rocket boosters or anything attached to it here but it's actually flying upside down if there is an upside down the bay doors would be opened and the thermal bottom of the shuttle facing the sun to protect it and those cargo bay doors open facing the earth as it flies around of course there's no upside down in space uh but to us it's upside down with those cargo bay doors open uh natalie so right now again uh one little problem that they are working but other than that uh astronauts uh john glenn on orbit

[01:20:02 (https://www.youtube.com/watch?v=M3OCB6gYpeg&t=4802s)](https://www.youtube.com/watch?v=M3OCB6gYpeg&t=4802s)

uh astronauts uh john glenn on orbit again after 36 years natalie and john this problem with the possible problem with a drag chute door could that possibly affect where the shuttle lands it certainly could if they found out that there was a serious issue with the drag shoot itself that they might have a problem with deploying it the option would always be to go to edwards air force base the dry lake bed out there which gives them a lot more margin for error on the lake bed than it does here at the controlled landing strip although it's long and it's wide here they're a lot more comfortable when they have problems to go back to edwards uh so that is certainly an option that they they might have at the end of this mission natalie and john uh although there is a question uh if this piece of equipment may have hit one of the engines that really wouldn't uh be a problem for them would it no i mean the engines now are cut off and they're really of no use any longer you don't power up again the vehicle is basically a glider going around the earth uh and then when they come back they use their retro rockets for their deorbit burn but the main engines are are of no consequence any longer lou right so the maneuvering jets are you know not part of that system uh so that so that wouldn't be a problem i've just been informed uh by our producer that we've located a piece of tape uh where we can see this uh drag shoot door coming off and we're getting that prepared we'll have that in in just a couple of minutes john zarrella will be back to you at the kennedy space center the space shuttle program has come a long way over the years marking many a milestone but it hasn't always been easy here's cnn's tony clark with a look at the program's successes and setbacks we've gone for main engine start we have made engines since the first launch 17 and a half years ago the space shuttle program has soared to tremendous heights and the shuttle has cleared the tower and it has fallen to cavernous lows [Music]

[01:22:02 (https://www.youtube.com/watch?v=M3OCB6gYpeg&t=4922s)](https://www.youtube.com/watch?v=M3OCB6gYpeg&t=4922s)

[Music] there have been 91 shuttle missions prior to glenn's flight crews have spent a total of 783 days in orbit performing experiments launching satellites retrieving satellites and repairing them they've practiced building a space station and linked up with the russian mir space station to learn what it's like to live and work on one with the deployment of the hubble space telescope in 1990 the shuttle helped astronomers look out into the heavens and over the years astronauts have returned to hubble to give it an even clearer view the doors just sprung open the space shuttle has provided a number of firsts for the u.s space program sally ride became the first american woman to fly in space in 1983. nine years later the crew of endeavor included the first african-american woman in space the first japanese astronaut and the first married couple on the same flight the shuttle has offered scientists from around the world the opportunity to work in space and to show people in their homeland the peculiarities and the benefits of working in weightlessness while the shuttle has been a workhorse for nasa it has not always lived up to its promise john glenn's flight is only the fourth shuttle mission this year there were twice as many last year the spartan satellite was put on glenn's flight because it failed to operate properly on a mission last year in 1996 there was an italian satellite that broke its tether and floated off fuel cell problem cut short one mission and bad weather and woodpeckers have kept the shuttle on the ground in some respects the shuttle program has even suffered from its own success over the years public interest has waned as flights seem to become routine

01:24:02 (https://www.youtube.com/watch?v=M3OCB6gYpeg&t=5042s)

as flights seem to become routine nasa hopes john glenn will help turn that around tony clark cnn johnson space center and when we come back again we'll have the video of that drag shoot door popping off during today's liftoff we'll be back [Music] among the hundreds of thousands of visitors who turned out for the discovery liftoff this afternoon was one special guest president clinton no stranger to watching history in the making nevertheless he got caught up in the season aw and emotion of the moment saying he felt like a kid at his first christmas cnn caught up with the president before the launch discovery we have a very special guest with us miles at this moment but not exactly with us around us president of the united states bill clinton is over at the vehicle assembly building right over here a couple hundred yards away from us and we have the privilege of saying good morning to him welcoming him on behalf of cnn at any rate to cape canaveral in this launch good to see you mr president good morning walter and good morning miles good afternoon i'm delighted to be here they say they say mr president that there are more visitors here than any time since the moon launchings the moon flights and that includes president of the united states what's particularly appealing to you about this flight well of course there's the john glenn factor uh senator glenn is a very good personal friend of hillary's in mind as well as a

01:26:00 (https://www.youtube.com/watch?v=M3OCB6gYpeg&t=5160s)

friend of hillary's in mind as well as a an ally a colleague and like all americans i'm thrilled that he's going up today but also you know this really is uh the last launch before we begin to put the international space station up so john glenn began this first phase of our space program and he's he's ending it uh just before we start on the space station so it's it's very exciting it's important for the space program but it's a great day for america a great day for our senior citizens and uh i hope that all americans share the exuberance that i feel today you know some naysayers say mr president that this flight of cleanses your reward to him for his stalwart support of yours during his years in the senate anything to that no i i've always wanted john to be able to go back as long as i've known he's wanted to but if i'd had my brothers he'd be home in ohio running for reelection right now and he said he was too old to serve another term in the senate but he wasn't too old to go into space and i think the american people should know that the decision to send him was made strictly by the book i had no role in it he had to pass the strenuous physical exams and then for each experiment he's going through he had to prove that he was qualified and able to do that i think this is very important you know one of the most important benefits that the american people derive from our space program is the whole rush of discoveries we get that help us here on earth environmental discoveries healthcare discoveries of all kinds we've got all kinds of medical uh scanning equipment today that we wouldn't have but for the space program we've got protective clothing that people who are super sensitive to the sun can wear that we wouldn't have but for the space program so we're going to get a lot out of john glenn going up there today and i think the country is well served by doing it and goodness knows for a lifetime of service to us in the air and on the ground he's earned this chance you know they say that president kennedy uh

01:28:00 (https://www.youtube.com/watch?v=M3OCB6gYpeg&t=5280s)

they say that president kennedy uh grounded glenn uh after his first flight because he didn't want to risk the death of a hero out there in the second flight would you have made that decision well i don't know i can't say because i wasn't there then and it's easy to second guess but i'll say this i think that john glenn going up today is a very good thing for america we're going to learn a lot from it and we're all going to i think be thrilled by it and i'm just glad he was brave enough to do it you know out there on pad 39a mr president uh there to the right to the south of the 39b from which this plate would take place there's a shuttle scheduled to take into orbit in just a few months the first parts of the planned american russian joint international space station almost a small city permanently in space but now that russia has this desperate economic situation that endangers that schedule it looks like we may have to put in a lot of money a lot of money to try to keep that space station on schedule the construction of it uh are we prepared to do that well walter if if it were required i would be supportive of it and i would be happy to talk to the congressional leaders in both parties you know our space program has been a great investment it's had hardly any increase in funding since i became president but we've gone from two launches to eight launches a year we've dramatically cut costs uh nasa is the sort of the the star the poster child of vice president gore's reinventing government campaign and we're getting a lot out of it if we were required now to help the russians during this difficult period which will not last forever so that they could continue to participate i would be in favor of that i think that that it's very important that we have the europeans the japanese the canadians and the russians in the space station venture i've been here i've been over the space station project many times in great detail in houston i've been uh twice i've been down there to look at

[01:30:00 (https://www.youtube.com/watch?v=M3OCB6gYpeg&t=5400s)](https://www.youtube.com/watch?v=M3OCB6gYpeg&t=5400s)

uh twice i've been down there to look at that and i think we're doing the right thing with this space station and we need to stay with it mr president it's miles o'brien i have a question for you but first i want to check the countdown clock for our viewers for just a moment we have now entered into a hold a 10-minute hold we are at t-minutes t-minus 20 minutes and holding the hole began at 1 20 p.m eastern standard time it will end at 1 30 pm eastern time and then we'll count down again to nine minutes another 10-minute hold at that point once again to remind our viewers this is simply a way of nasa keeping up with the important business at hand and making sure everybody's doing their job and time mr president i'm just curious are you nervous oh a little bit i think that uh it's part of the excitement i'm a little nervous but i've got great confidence in these people i've uh i've had a lot of great honors as president to meet people who serve our country but meeting the people who are in the space program the astronauts those who work on the ground those who plan these missions they've done everything they can possibly do and they would never compromise an iota of safety or reliability just because hillary and i and all the rest of the world are here through the media i feel good about this but yes i'm nervous and i'm excited i feel like a kid at his first christmas i'm very excited about this uh mr president president bush 1989 proclaimed the national goal to send humans to the planet mars by the year 2019 that's the 50th anniversary of neil armstrong's first step onto the moon do you affirm that goal to mars mission well let me say what we're doing now will help us once we get to the position of evaluating that i don't want to either affirm or renounce it what i think we should do is to recognize that what we have now is a set of very focused goals in our space program we are working on the space station we are working on the shuttle we are working on space transportation we are working on things that

[01:32:01 (https://www.youtube.com/watch?v=M3OCB6gYpeg&t=5521s)](https://www.youtube.com/watch?v=M3OCB6gYpeg&t=5521s)

we are working on things that tell us about our environment on earth and then we're doing these special projects the hubble telescope which is magnificent and we did the mars pathfinder mission uh on you remember july the fourth of last year and so uh we're gonna see how we are let's get the space station up and going and uh evaluate what our long-term prospects are i tell you this i am for the continued aggressive exploration of space uh in ways that are uh high quality cost effective and that will benefit us here on earth and i hope that we can have as a result of this flight today even more broad-based american support from all americans of all parties in all walks of life for our mission in space it's still very very important mr president as a journalist i think i'd be remiss at this moment in time if i didn't ask you what your advisors are telling you about the results of next tuesday's election the truth is they don't know we've got an extraordinary number of very very close elections in this two-year period the members of the other party raised uh i think a hundred million dollars more than our folks did but we've got good candidates and extremely good grassroots effort i think a good agenda the only thing i think i should say today to avoid being too political is that it's a very important election and i would hope that every american who is eligible to vote would go and vote in that election if you look at this space launch today this is a triumph of american democracy it was made possible by the elected representatives of the american people supporting the space program and it is just one more example of why it's so important for citizens to stand up and be counted on election day so if you feel patriotic when you see john glenn and the others go up in space today then keep that patriotic feeling until next tuesday and go and vote for the candidate and the programs and the issues of your choice

01:34:00 (https://www.youtube.com/watch?v=M3OCB6gYpeg&t=5640s)

all right mr president thank you so much for being with us on cnn today and we hope you enjoyed the launch thank you i will i think i ought to say just one other thing because i'm talking to cnn i know that i speak for a lot of people when i express my thanks to the late john holloman for the work he did to advance our cause in space and i know that all of you will be thinking about to him and his family today and uh i thank cnn for giving such a high profile to our space mission thank you that's the president uh before the launch making a special point of attending today's uh launch of discovery and one of the reasons he made a special point was because his wife hillary rodham clinton apparently told him before they leave washington one thing she wants to do was see a launch she got her chance it was on his honeydew list yes very important all right now we told you we had a piece of tape and we're about to show it to you it doesn't last very long and john zarrella if you'll pay close attention here too we'll be talking about it it's uh in the final moment before the liftoff five four seven two hatch door that's the drag chute door falling off and that's what we're talking about uh what went wrong uh during the launch of the space shuttle if that will have any effect on this flight uh remains to be seen john zarella there it is yeah lou it looks as if uh it it's hard to tell but when you move when that picture goes back into motion it doesn't appear as if it hits anything on the way down can we put that in motion let's replay it and keep that and let it well in any event lou as we watch that uh it doesn't appear that it hits anything here we got we have another look at it we can watch it come off and there it is and what size is it john it's 18 inches by 22 inches waffle aluminum is what they call it it's not very big that's for sure but even as i watched

01:36:00 (https://www.youtube.com/watch?v=M3OCB6gYpeg&t=5760s)

that's for sure but even as i watched that tape earlier and you you move to the wide shot now these are nasa isolation cameras those are the three main engines there at the bottom of the vehicle as you move to the wide shot you can see the uh this uh this door actually falling away uh even on the wide image from uh from launch control there so uh or here we go again one more another look at it right as the engine begins to vibrate and then bang it comes off so that extreme vibration the gimbaling of the engines lou and natalie and john we have uh an explanation for the astronauts from mission control as to what happened here let's listen to that tape houston go ahead yes kurt just prior to liftoff after main engine start what appears to be a panel in the vicinity of the drag chute door came off the vehicle and came in contact with the center main engine bill we are evaluating at this time we do not expect this to impact your your mission if it was a drag chute door this is not a hazardous condition and we expect the mission to proceed as scheduled there's there's mission control saying that the door did in fact uh make contact with this main engine bell but they do again say that uh no impact on the flight as we were talking earlier lou it's uh that that the main engines are not used once the vehicle is in orbit so uh and let me show you on the model here real quick one more time where we're talking about now uh you you can probably see we've got the three main engines down under here it's this top engine that the door this is the bell of that top engine and the door apparently comes off from this the panel as they call it comes off from up underneath the wing and then strikes the bell as it falls away back to the base of the launch pad uh so again a very unusual event here they'll certainly have to go back and figure out what exactly went wrong

01:38:00 (https://www.youtube.com/watch?v=M3OCB6gYpeg&t=5880s)

what exactly went wrong uh because you know endeavor the shuttle endeavor is actually sitting behind me over on my left shoulder and in early december that vehicle is expected to be lifting off lou and natalie all right john sorel at kennedy space center of course johnson space center in houston is now in charge of the mission that's where we find tony clark and he's been checking into this uh what happened during liftoff with this uh drag chute door and he's been talking about some possible options if they have to go that route tony well in fact that's what uh team here at the johnson space center and also at the kennedy space center looking into is what effect would that have uh during a news conference where we were told about the door falling off some of the questions being raised is whether or not that creates the possibility that the drag chute might come out prematurely whether on orbit or or some other time and whether there might be some effect on the pyrotechnics and those are issues that nasa is looking at right now they have a variety of options you know there are a variety of sensors around the shuttle so they can do some checking that way to see if there is a possibility that something may happen they always have the possibility of a spacewalk to go and inspect there they carry two spacesuits on every shuttle so that they have the option of a spacewalk but in most respects that is a last option to go look at and i was talking to the public affairs and and you know they're talking about whether or not there is even the possibility of using the remote manipulator on their cameras on that to do some inspection back there and so they're looking at all the options right now at this point apparently no effect they foresee no effect on this nine-day mission lou natalie all right tony clark at the johnson space center and again liftoff happened at 2 20 p.m eastern this afternoon and it was quite exciting knowing john glenn was strapped inside going up again john glenn is speeding again in space going over 17 000 miles an hour we have another space a space special scheduled for 8 pm

01:40:01 (https://www.youtube.com/watch?v=M3OCB6gYpeg&t=6001s)

a space special scheduled for 8 pm eastern tonight miles o'brien we'll host that that is our special report on john glenn's return to space we're continuing to work on that anomaly that door falling off and what that may mean for the flight as we go along i'm lou waters i'm natalie allen inside politics is next

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